IN THE SPECIFICATION:

Please amend the paragraph beginning at page 6, line 16, as follows.

Variations of this approach are possible. One exemplary implementation is presented here to illustrate the technique. FIG. 3 is a sample set miss table (SMT) 300 that contains information about the sets that recently experienced misses, one entry per set. For purposes of illustration, the SMT 300 discussed below has eight entries, one for each of the last eight sets to experience a miss. Each entry in the table 300 is comprised of a set index field 310 that records a cache index of a set, a miss counter 320, an access counter 330, and a valid bit 340. Entries invalidate themselves periodically under certain conditions, making room in the table for new entries.

Please amend the paragraph beginning at page 10, line 8, as follows.

A second circumstance occurs when the augmentation set is no longer needed, i.e., the thrashed set is no longer being thrashed. The determination that an augmentation set is no longer necessary is difficult. It may be desirable to differentiate between two situations: 1) thrashing has been decreased or eliminated, but the augmentation set is still necessary, and, 2) thrashing is not likely to occur if the augmentation set is unmapped. One approach is to establish a minimum number of cache accesses (access period) for which a set is augmented. If the set is no longer thrashing at the end of the access period, the augmentation set is unmapped. If the second detection approach is used, for example, when a set is augmented, its entry in the SMT 300 may be invalidated. If the set continues to experience thrashing, the thrashed set will again be augmented during the following ~~period,~~ period; if not, its augmentation is discontinued.